CLAIMS

1. A drum shredder for reducing material comprising

a housing;

a tapered cutting drum rotatably mounted within the housing;

at least one cutting implement disposed about an outer surface of the cutting drum to provide a compound cutting angle;

an anvil adjacent to the cutting drum; and

a drive connected to the drum.

2. The drum shredder of claim 1, wherein the anvil cooperates with the cutting drum to provide an acute cutting angle.

3. The drum shredder of claim 1, wherein the cutting drum has two ends and a middle section, the cutting drum being tapered toward the middle section to form two regions, each region having at least one cutting implement.

4. The drum shredder of claim 3, wherein the drum shredder further comprises:

a bellyband, the bellyband being adapted to accommodate at least two major discharge streams, each discharge stream having a different major discharge direction;

a transition in communication with the bellyband, the transition being adapted to accommodate at least two major discharge streams from the bellyband, each discharge stream having a different major discharge direction; and

a discharge port in communication with the transition.

5. The drum shredder of claim 1, wherein the cutting drum is tapered toward both ends.

6. The drum shredder of claim 5, wherein the drum shredder further comprises:

a belly band, the bellyband being adapted to accommodate at least two major discharge streams, each discharge stream having a different major discharge direction;

a transition in communication with the bellyband, the transition being adapted to accommodate at least two major discharge streams from the bellyband, each discharge stream having a different major discharge direction; and

a discharge port in communication with the transition.

7. The drum shredder of claim 5, wherein the transition conforms to the cutting drum and has an extended void space.

8. The drum shredder of claim 5, wherein the bellyband ends at about 90 degrees to about 135 degrees away from the chipping point.

9. The drum shredder of claim 1, wherein each cutting implement has a pocket for carrying reduced material associated with it, each pocket being disposed in the surface of the cutting drum.

10. A drum shredder comprising:

a housing;

at least one cutting drum rotatably supported in the housing;

at least one cutting implement supported by the cutting drum;

a bellyband, the bellyband being adapted to accommodate at least two major discharge streams, each discharge stream having a different major discharge direction;

a transition in communication with the bellyband, the transition being adapted to accommodate at least two major discharge streams from the bellyband, each discharge stream having a different major discharge direction; and

a discharge port in communication with the transition.

11. The drum shredder of claim 10, wherein the transition has a non-linear rear wall

12. The drum shredder of claim 10, wherein the transition has a multi-sided rear wall.

13. The drum shredder of claim 10, wherein the transition has a substantially 'v-shaped' or substantially inverted 'v-shaped' wall.

14. The drum shredder of claim 10, wherein the transition has a semi-circular wall.

15. The drum shredder of claim 10, wherein the transition has at least 5 sides.

16. The drum shredder of claim 10, wherein the bellyband has a substantially 'v-shaped' or substantially inverted 'v-shaped' wall.

17. The drum shredder of claim 10, wherein the transition provides an extended void where the transition opens from the bellyband.

18. The drum shredder of claim 10, wherein the cutting drum is tapered.

19. The drum shredder of claim 18, wherein each cutting implement has a pocket for carrying reduced material associated with it, each pocket being disposed in the surface of the cutting drum.

20. The drum shredder of claim 19, wherein the shape of the bellyband conforms with the cutting drum.